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12b. DISTRIBUTION CODE

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13. ABSTRACT (Maximum 200 words)

INTRODUCTION: Many studies have documented the frequency and severity of injuries resulting from military parachuting, but few have examined differences in the distribution of injuries among men and women. As the role of women in the military increases, further study will be essential. Parachute jumps by women have more than doubled in the past decade. METHODS: All serious, non-combat Army parachuting injuries are reported to the US Army Safety Center (USASC), Ft. Rucker, AL on a DA Form 285. We searched the USASC database for parachuting injuries among men and women from CY1983 to CY1992. Data describing body region injured and injury type were collected. Complete narrative reports were also examined on a subsample of 600 injured men and women in order to evaluate differences in causation of injury. RESULTS: There were 4,359 injured male, and 147 injured female parachutists reported. The distribution (%) of injuries, both by body region injured and by injury type, varied significantly between men and women. Body regions injured for men vs women were: lower extremity 56.4% vs. 71.6% (OR=1.62,95%CI 1.15-2.3, p=.004) and back injuries 11.5% vs 4.8% (OR=2.60,95%CI1.17-6.1,p=0.01). Injury types for (truncated after 200 words)

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#### MILITARY PARACHUTING INJURIES AMONG MEN AND WOMEN

USED.

P.J. Amoroso\*, N.S. Bell, and B.H. Jones. U. S. Army Research Institute of Environmental Medicine, Natick, MA. 01760-5007

INTRODUCTION: Many studies have documented the frequency and severity of injuries resulting from military parachuting, but few have examined differences in the distribution of injuries among men and women. As the role of women in the military increases, further study will be essential. Parachute jumps by women have more than doubled in the past decade. METHODS: All serious, non-combat Army parachuting injuries are reported to the US Army Safety Center (USASC), Ft. Rucker, AL on a DA Form 285. We searched the USASC database for parachuting injuries among men and women from CY1983 to CY1992. Data describing body region injured and injury type were collected. Complete narrative reports were also examined on a subsample of 600 injured men and women in order to evaluate differences in *causation* of injury. <u>RESULTS</u>: There were 4,359 injured male, and 147 injured female parachutists reported. The distribution(%) of injuries, both by body region injured and by injury type, varied significantly between men and women. Body regions injured for men vs women were: lower extremity 56.4% vs. 71.6% (OR = 1.62, 95% CI 1.15-2.3, p=.004) and back injuries 11.5% vs 4.8% (OR = 2.60, 95% Cl 1.17-6.1, p= 0.01). *Injury types* for men vs women were: **fractures** 59.3% vs. 78.8% (OR= 2.57 95% Cl 1.69-3.91, p<0.000), **sprains** 12.4% vs. 3.4% (OR = 4.02, 95% Cl 1.58-11.17, p= 0.001). *Injury cause* also varied by gender. An **improper parachute landing fall** was implicated in 58.6% of injuries for men vs. 81.8% for women, interference from another jumper 8.6% vs. 2.7%, ground obstacle 8.6% vs. 1.4%, and injury at aircraft exit 5.4% vs. 1.4%. CONCLUSIONS: While caution should be exercised in interpreting reported injuries for men and women using percents of total injuries, these preliminary findings strongly suggest that types and causes of injury vary between men and women and need further investigation.

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